ALBA 462 AC/DC

Four-valve, plus rectifier, AC/DC superhet, covering short, medium and long wavebands, using Mullard "E" valves. Veneered walnut cabinet, 14½ in. wide, 8½ in. high, 6 in. deep. Marketed by H. J. Balcombe, Ltd., 52, Tabernacle Street, London, EC2.

THE aerial, which is formed of 24 ft. of plastic covered wire, is permanently attached to the set. The signals are fed *via* C1 to S1 and thence to aerial coupling coils L1 (SW), L2 (MW), and L3 (LW). S2 selects the grid coils L4 (SW), L5 (MW) and L6 (LW) to grid of V1 a triode-hexode frequency changer.

VC1 is aerial tuning capacitor and T5 (SW), T3 (MW) and T1 (LW) in parallel with C28 are aerial set trimmers. L5 (MW) and L6 (LW) are coils of the permeability tuned type and further trimming is provided by their adjustable iron dust cores.

AVC is applied to grid of V1 on MW and LW *via* R3 decoupled by C10 and C11. Cathode bias for V1 is obtained from R5 and is decoupled by C9. Screen voltage is derived from R1 decoupled by C2.

L13, C3 form the primary of IF T1, a permeability tuned IF transformer, on the anode set of hexode section of V1.

S3 selects the oscillator grid coils L7(SW), L8 (MW), and L9 (LW). VC2 is oscillator tuning capacitor and R2, C6 provide leak-condenser bias to oscillator grid. T6 (SW), T4 (MW), and T2 (LW) in parallel with C27 are oscillator trimmers. L8 (MW) and L9 (LW) are coils of the permeability tuned type and as in the case of L5 and L6, further trimming is provided by adjustment of their iron dust cores C5 (SW), C7 (MW), and C8 (LW) are fixed padders.

S4 selects the series fed oscillator reaction coils L10 (SW), L11 (MW), and L12 (LW) to anode of oscillator. The oscillator HT is derived from R1.

L14, C4 the secondary of IFT1, feeds the signal to grid of V2, an IF amplifier. AVC is fed to grid of V2 *via* R4, C11, cathode bias is obtained from R5 decoupled by C12. Screen voltage is derived from R1, decoupling being supplied by C2.

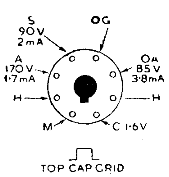
L15, C20 from the primary of IFT2, a permeability tuned IF transformer, in the anode circuit of V2. L16, C16 feed the signal diode of V3, R8, C14, C15 being an IF filter. R7 is the diode load.

C13 feeds the rectified signal to R6, the volume control, and thence to grid of V3. C19 energises the AVC diode, R12 being its load resister. Cathode bias and AVC delay voltage is obtained from R5 decoupled by C12.

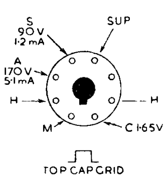
R9 is anode load resistor of V3 and C17 is anode HF bypass capacitor. C18 passes the amplified signal to grid V4, the output valve. R10 is grid stopper and R11 is grid leak to V4. R13 provides cathode bias and, not being decoupled, supplies a percentage of negative feed-back to grid V4. Screen voltage is derived from R15, decoupling being provided by C21.

L17, the primary of OP1, the LS output transformer is in anode set of V4. C25 prevents parasitic oscillation taking place in V4.

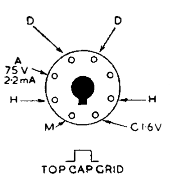
V1—CCH35



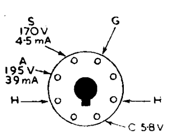
V2 — EF39



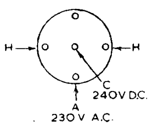
V3 — EBC33



V4 — CL33

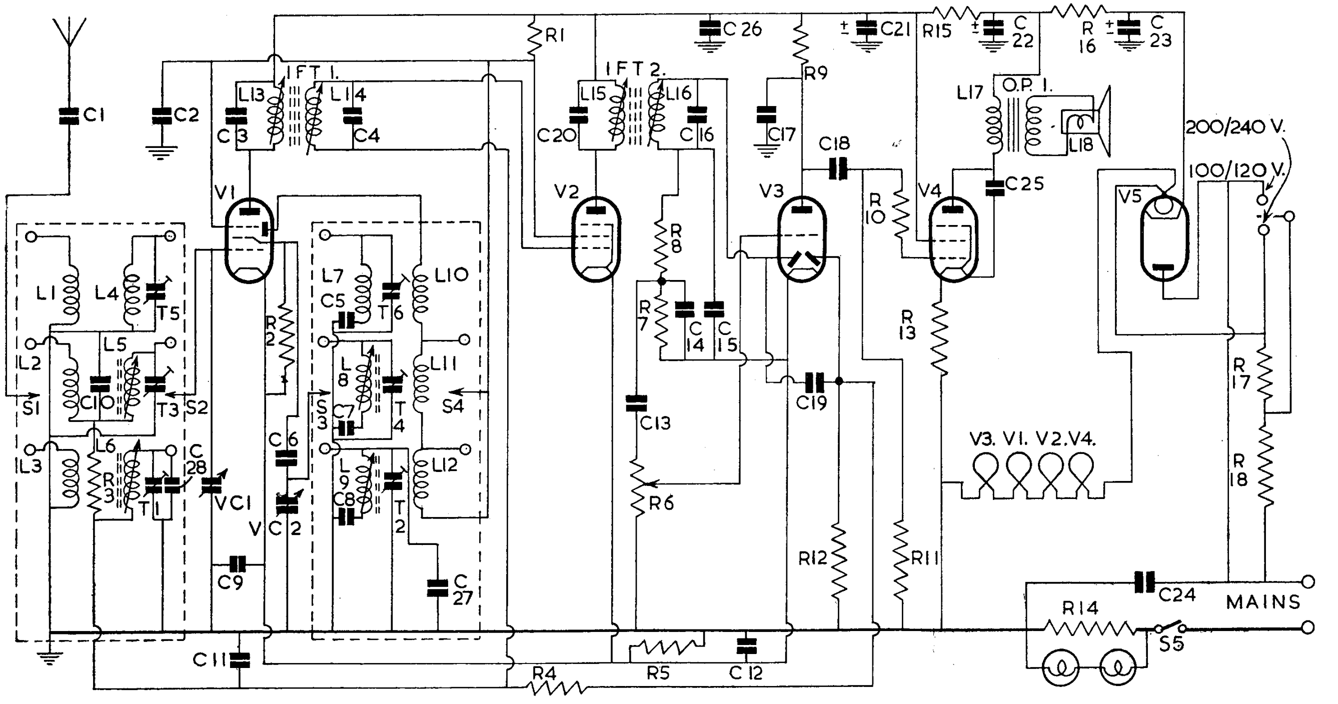


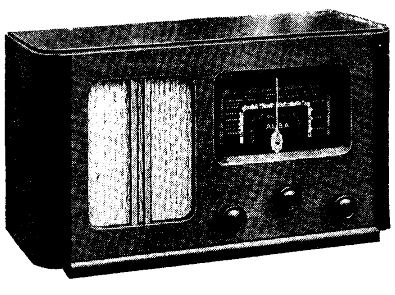
V5 — 1D5



PILOT LAMPS

ALL READINGS TAKEN ON MODEL 7 AVOMETER





HT for V4 is taken from junction R15/R16 and is smoothed by C22. L18, the secondary of OP1, is connected to a low impedance speech coil L19.

HT is supplied from V5, the rectifier valve, and is resistance capacitance smoothed by R15, R16, C21, C22, C23. C26 provides HF decoupling of HT supply to V1—V2.

The heaters of V1—V5 and dial light are wired in series and fed, on 100/120V, direct from mains. On 200/240V supplies R18, which forms part of line cord, is connected in series. On 250V supplies R17, which is the second section of the line cord, is also further connected in series with R18. The dial lights are shunted by R14.

C24 is mains input filter capacitor. S5 is mains on/off switch.

TRIMMING INSTRUCTIONS AND CHASSIS LAYOUTS OVERLEAF.

CAPACITORS

C	*Mfds*
1	200pf Mica
2	.1 Tubular 350v
3	100pf Silver Mica
4	100pf Silver Mica
5	5600pf Silver Mica
6	47pf Silver Mica
7	575pf Mica
8	200pf Silver Mica
9	.1 Tubular
10	.005 Tubular
11	.05 Tubular 350v
12	.25 Tubular 350v
13	.005 Tubular 1000v
14	100pf Silver Mica
15	100pf Silver Mica
16	100pf Silver Mica
17	.0002 Mica
18	.005 Tubular 1000v
19	100pf Mica
20	100pf Silver Mica
21	16 } Electrolytic 400v
22	16
23	8
24	.05 Tubular 350v
25	.005 Tubular 1000v
26	.1 Tubular 350v
27	46pf Silver Mica
28	46pf Silver Mica

RESISTORS

R	*Ohms*
1	10K ½W
2	47K ¼W
3	680 ¼W
4	2.2M ¼W
5	100 ½W
6	1M Vol. Control
7	470K ¼W
8	47K ¼W
9	47K ¼W
10	47K ¼W
11	470K ¼W
12	1M ¼W
13	150 ½W
14	40 Wirewound
15	1.5K 2W
16	560 2W
17	100 } Tapped Line Cord.
18	600

INDUCTORS

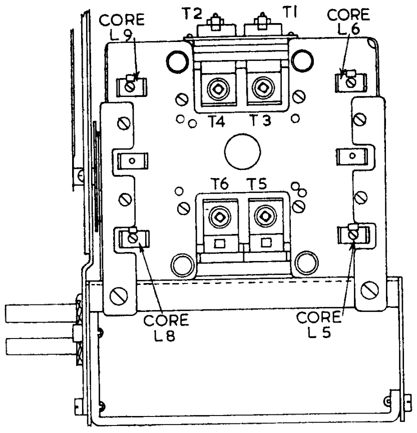
L	*Ohms*
1	Very low
2	Very low
3	60
4	Very low
5	2.75
6	14
7	Very low
8	1.75
9	4.5
10	Very low
11	.8
12	1.2
13	6.7
14	7.7
15	7.5
16	7.5
17	250
18	Very low
19	Very low

ALBA 462 — *Contd.*

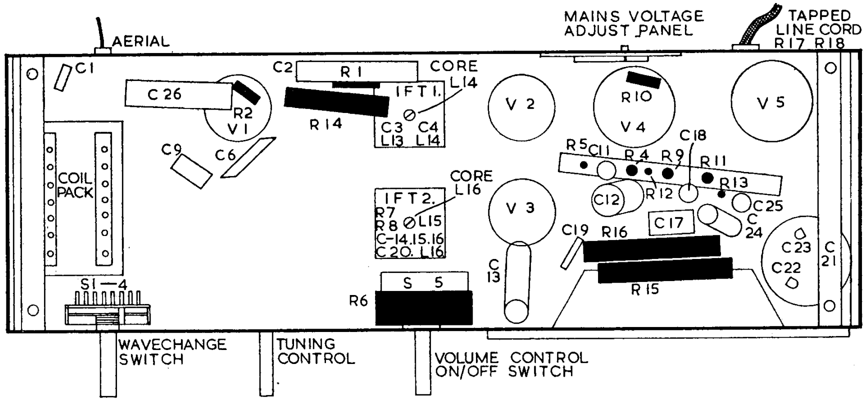
TRIMMING INSTRUCTIONS

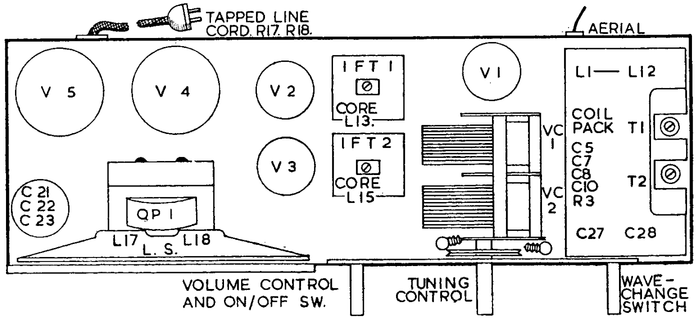
Apply Signal as below	Tune Receiver to	Adjust in Order stated for Max. Output
(1) 460 KC to grid of V1 *via* .01 capacitor	550 metres	L16, L15, L14, L13
(2) 15 MC to aerial socket *via* dummy aerial	20 metres	T6, T5
(3) 545 KC as above ..	550 metres	L8, L5
(4) 1.2 MC as above ..	250 metres	T4, T3. Repeat (3) and (4) until max. output is obtained.
(5) 150 KC as in (2) ..	2,000 metres	L9, L6
(6) 300 KC as above ..	1,000 metres	T2, T1. Repeat (5) and (6) until max. output is obtained.

NOTE.—Precautions are necessary in coupling signal generator to receiver due to this being an AC/DC model.



Above : **Details of trimmers.**
Below : **Chassis layouts of Alba 462 AC/DC.**





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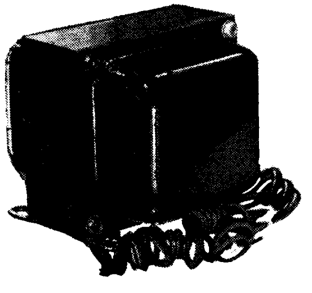

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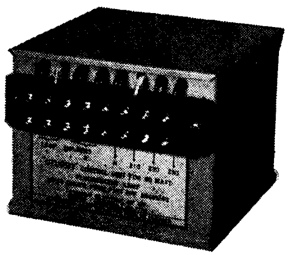

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